

# Quality Assurance for Energy Savings Performance Contracts

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## Today's Topic: Process Improvement

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# The Quality Challenge:

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## **Maintaining quality throughout the project life cycle**

- ☐ Optimum performance over many years
  - ☐ Keeping up with technology
  - ☐ Maintaining and operating the systems
    - Persistence of savings
    - Achieving predicted energy and dollar savings
    - Maintaining continuity and corporate memory
  - ☐ Integration with ever-changing and evolving site requirements
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# Ass't Sec'y Cathy Zoi memo

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- ❑ Process Improvement
    - Reducing the time to design and award ESPC projects using "fast-track" procedures for projects within a certain scope;
  - ❑ Competition
    - Increasing the amount of direct price-based competition between ESCOs to improve taxpayer value;
  - ❑ Life Cycle Support
    - Establishing a full "life of contract" audit function to ensure all promised savings are being realized and that all parties fulfill their contractual obligations;
  - ❑ Cost of Money
    - Seeking ways to reduce the borrowing expenses associated with these projects;
  - ❑ Risk Management
    - Clarifying procedures for risk apportionment associated with potential energy cost fluctuations;
  - ❑ Climate Change
    - Increasing focus on reduced carbon emissions.
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# The Bottom Line

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- ❑ ESPC's need support throughout their lives to ensure:
    - Energy savings
    - Cost Savings
    - Proper O&M
    - Proper M&V
  - ❑ FEMP will begin to provide this support in FY 2010
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# The Chain of Quality – Many Links

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- Many Steps
    - Complicated process
    - From before the initial proposal to the end of the performance period
  
  - From Cradle to Grave - Many players
    - Site personnel
    - ESCO's
    - Agency HQ/regional/local
    - Suppliers
    - Contractors
    - Engineers, lawyers, contracting officers, building managers & operators
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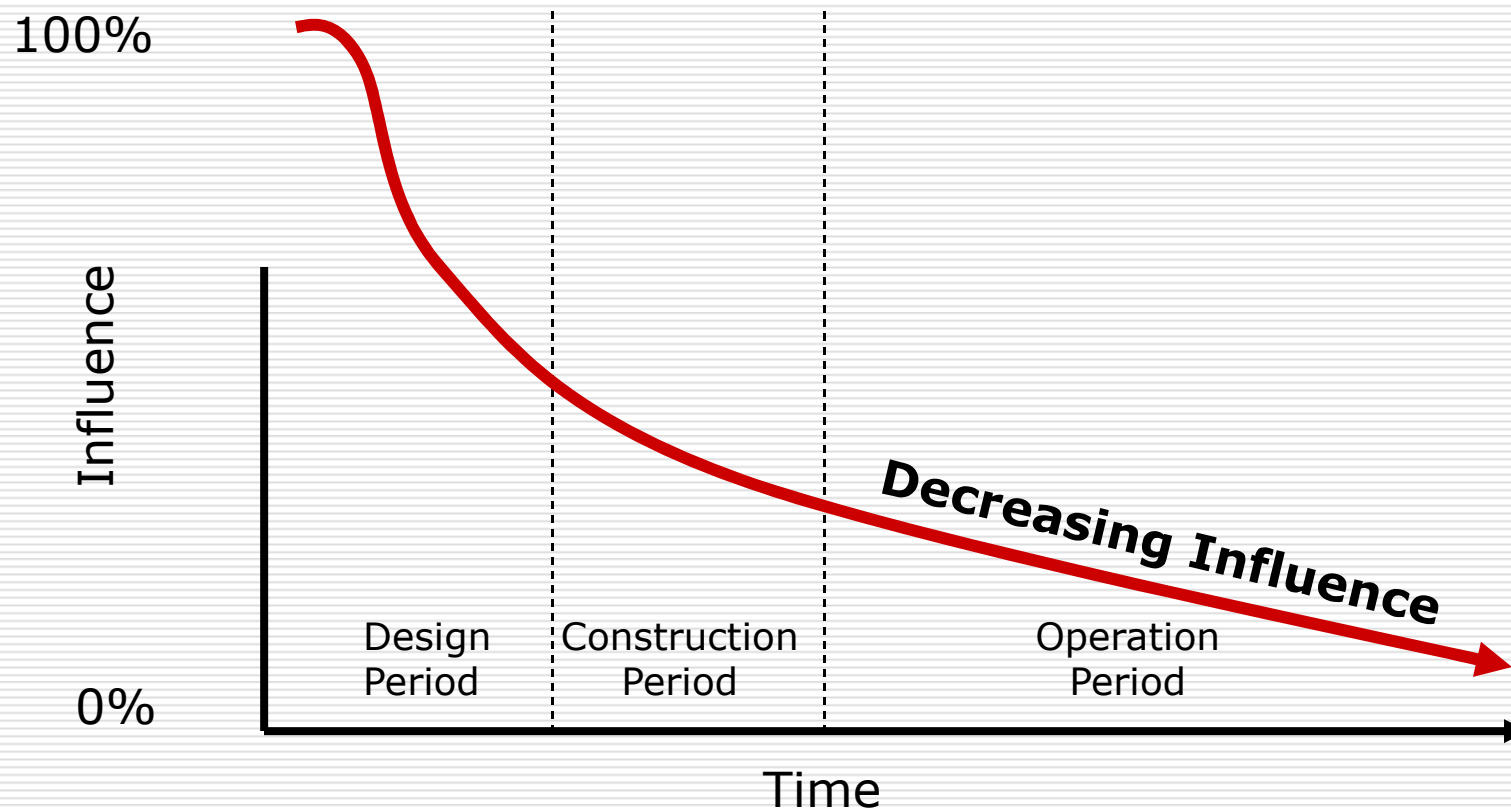
# More Links in the chain

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- ☐ Many technologies
  - ☐ Many years
    - Up to 25 years, not including 2-4 years leading up to signed DO
    - Changes in
      - ☐ Site conditions
      - ☐ Mission/use of facilities
      - ☐ Players
      - ☐ Technologies
      - ☐ Economics
      - ☐ Politics
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# Influence on Quality

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Source: Quality in the Constructed Project, American Society of Civil Engineers

# Quality Assurance Links

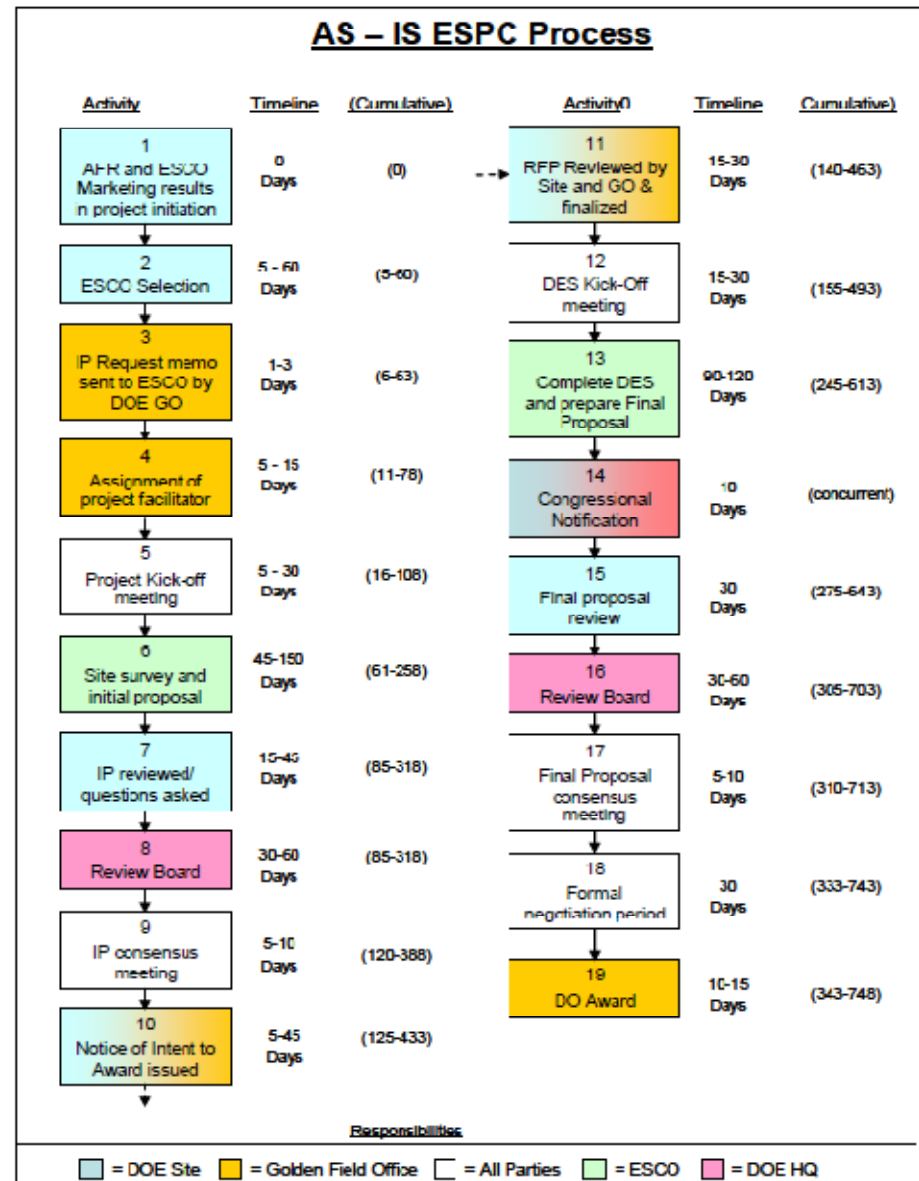
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- Getting to the signed contract
    - QA Awareness/education at all levels
    - Project identification, concept stage
    - Contractor selection
    - Facilitation
    - Site Data Packages
    - The Preliminary Assessment
    - The Final Proposal
    - The Delivery Order
  - The performance period
    - Operating and maintaining the projects
    - Measurement and Verification of results
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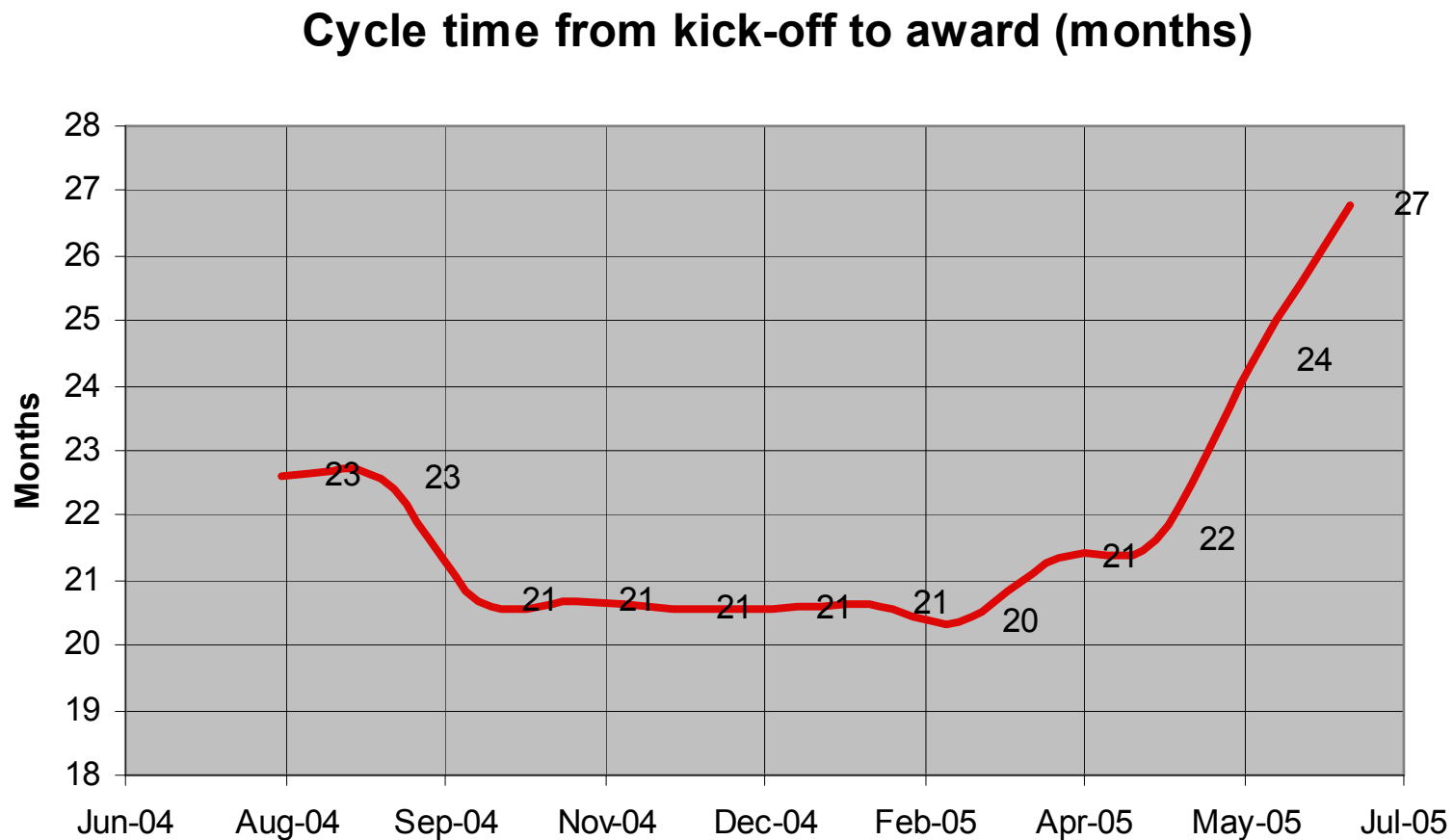


# The "Old" Process

*The current, or "before" ESPC process works like this:*

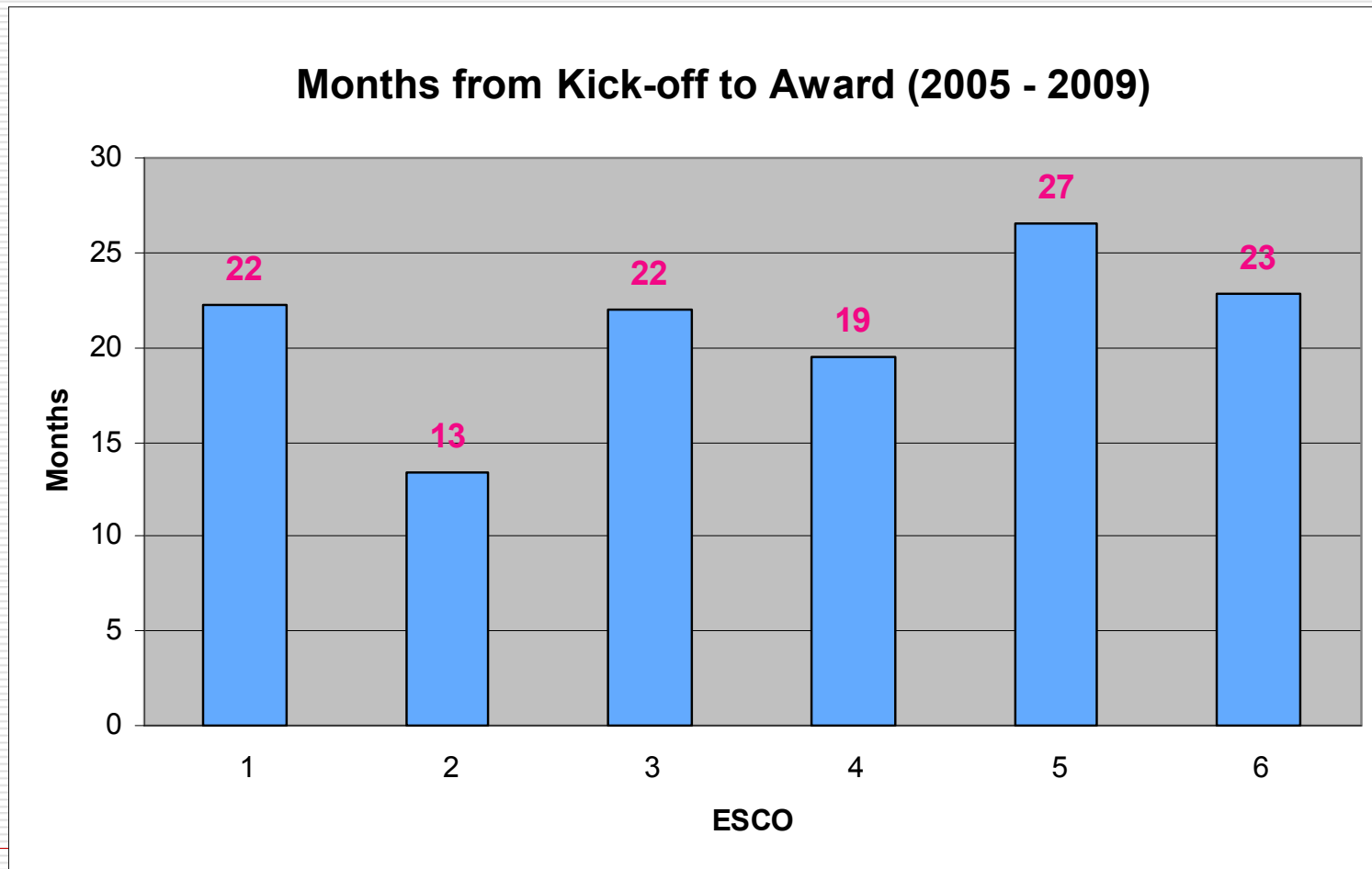


# Cycle Time - Where We Are Now



# Historic Cycle Time by ESCO

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# The Challenge

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- ☐ How to:
    - Streamline
    - Maintain quality
    - Get results
      - ☐ Energy savings
      - ☐ Dollar savings
      - ☐ Greenhouse gas reductions
    - Ensure life of contract performance
  - ☐ Not multiple choice, but “all of the above”
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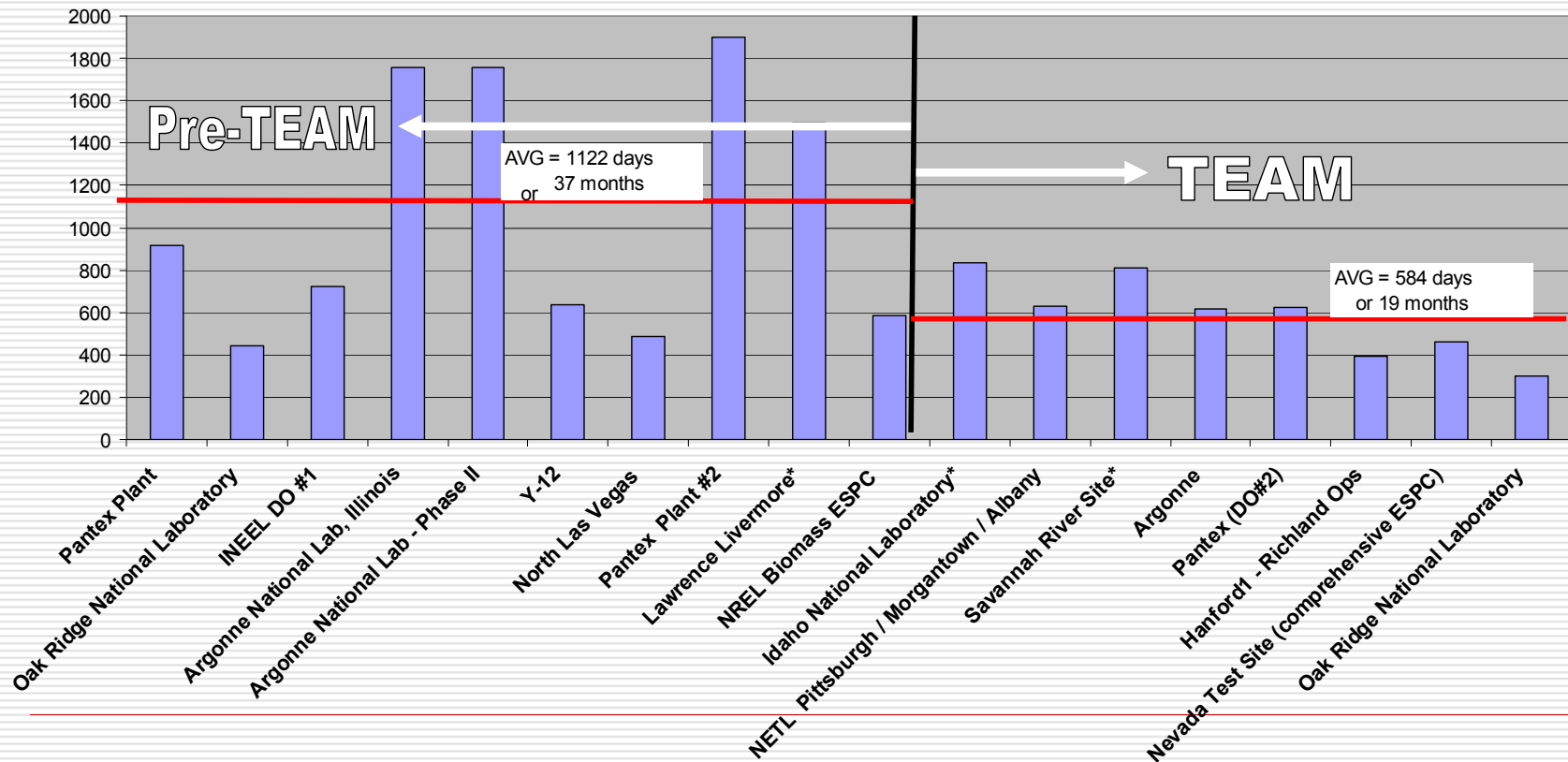
# The DOE/TEAM Streamlining Attempt

## Proposed Streamlined ESPC Process

<u>Activity</u>	<u>Timeline</u>	<u>(Cumulative)</u>
1 Project Initiation	0 Days	(0)
2 ESCO selection & RFP for Detailed Energy Survey*	15-30 Days	(15-30)
3 Detailed Energy Survey kick- off meeting	7 Days	(22-35)
4 DES Proposal**	90 Days	(112-127)
5 Government proposal review and feedback to ESCO (including review board)***	52 Days	(164-179)
6 Congressional notification++	30 days before award	Send to Congress 30 days prior to award
7 Formal negotiation period	15 Days	(179-194)
8 Finalize task order (Includes all reviews and approvals)	15 Days	(194-209)
9 Signed task order	1 Day	(195-210)

# So How Did That Go?

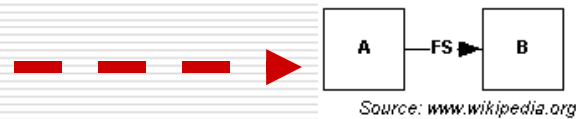
DOE/TEAM Cycle Time in Days



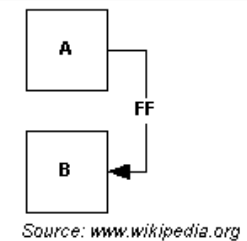
# Critical Path Management

## □ Four kinds of dependencies:

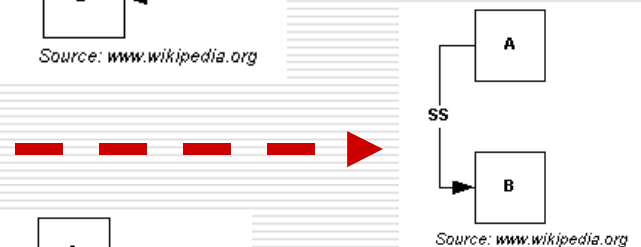
- B doesn't start until A is finished



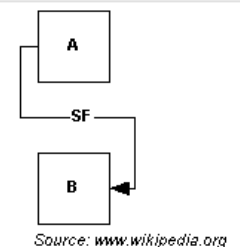
- B doesn't finish before A is finished



- B doesn't start before A starts

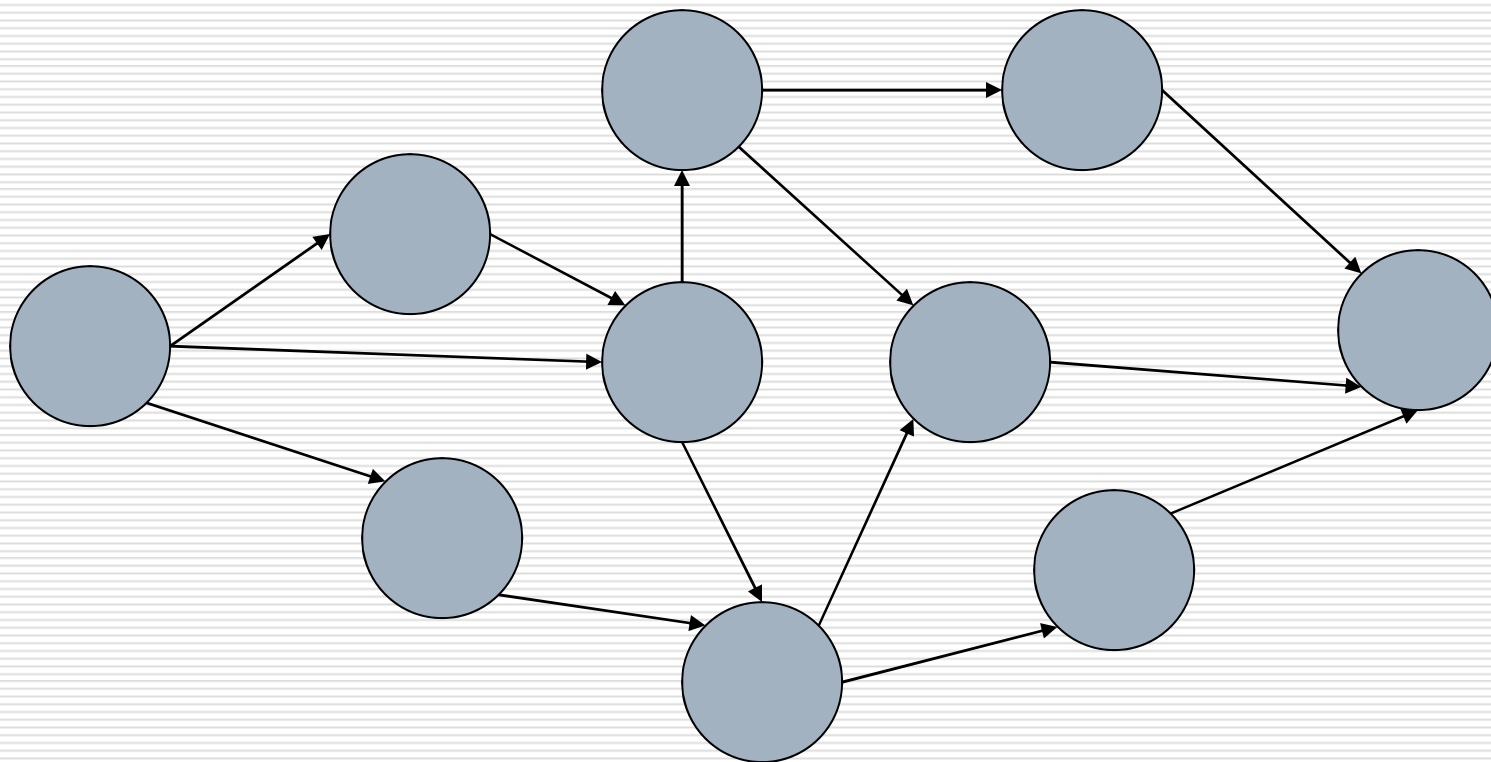


- B doesn't finish before A starts



# Example network diagram

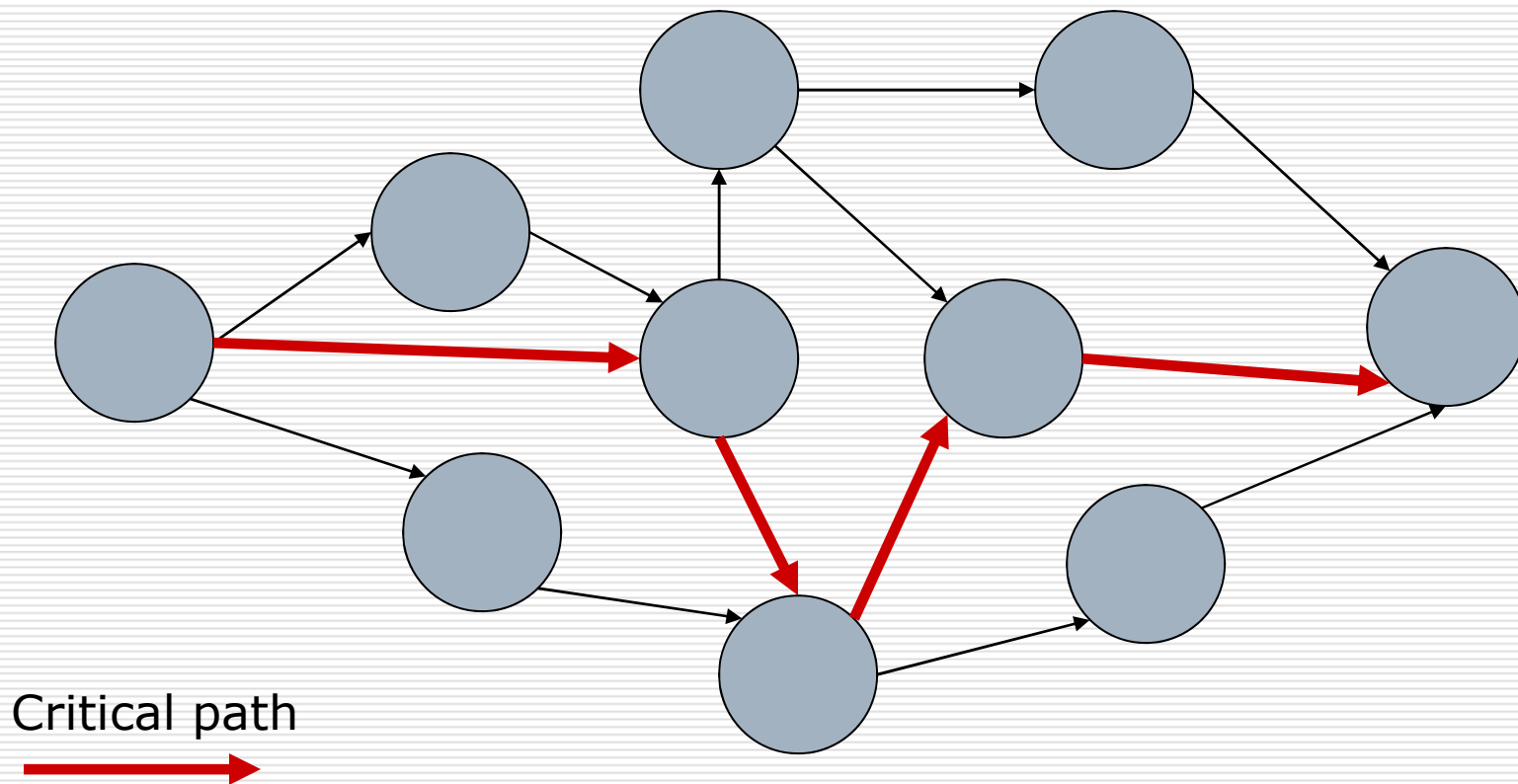
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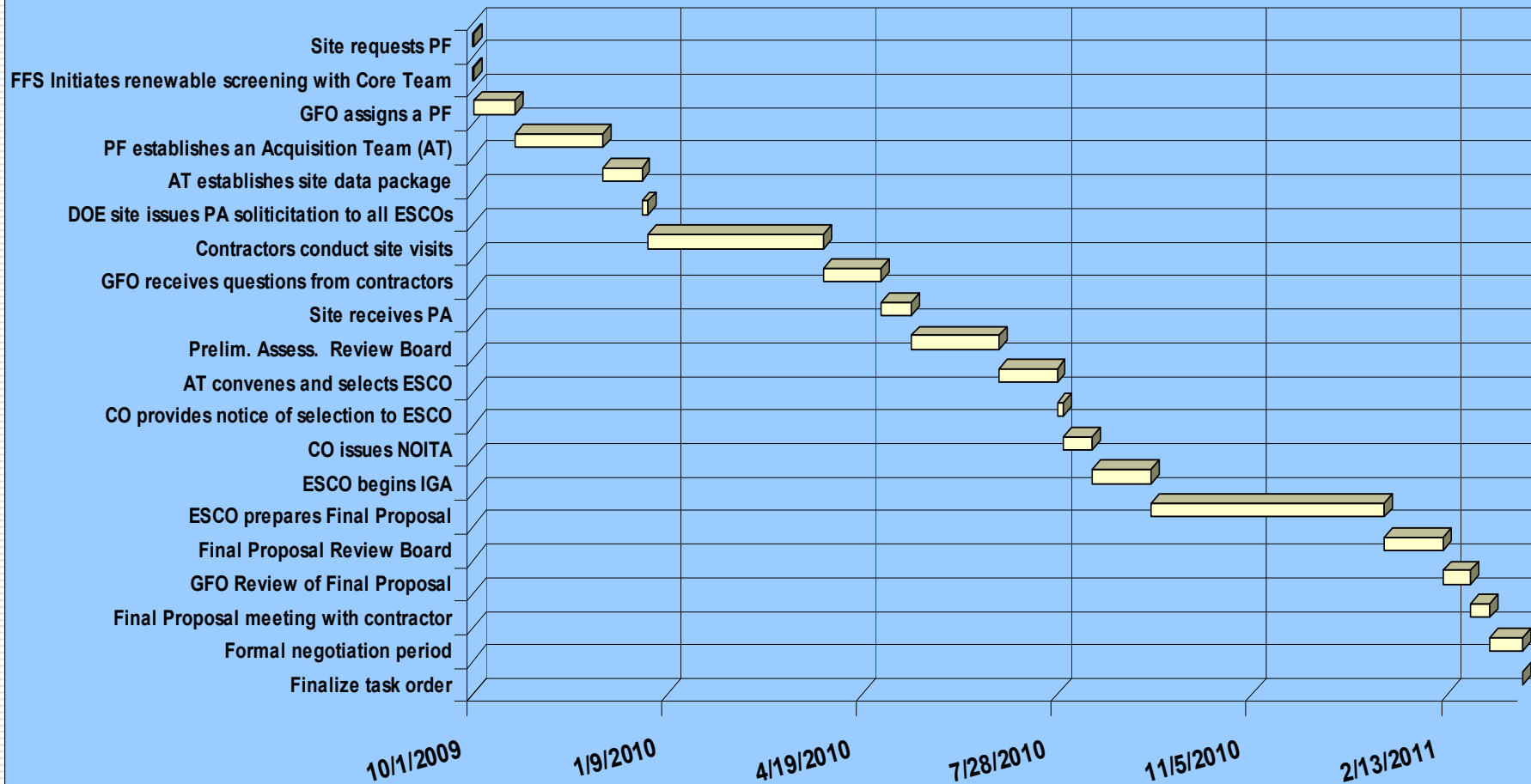


# Example network diagram

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# Proposed 18 Month DOE ESPC Process



# ESPC Critical Path Management

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- ❑ ESPC is a linear process (at the major milestone level)
    - Each step depends on the previous step
    - Not much simultaneous activity
    - No “slack time”
  - ❑ Therefore
    - EVERYTHING is on the critical path
    - Delays in any step can cause delays in the entire cycle
    - The only way to make up is to compress another subsequent activity into a shorter timeframe
  - ❑ Is there a better way?
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Assistance Secretary Zoi's memo also requires the following

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- ☐ Develop a process to ensure that all of the ESCOs that have been awarded DOE ESPC contracts be made aware of each proposed task order and are encouraged to submit a Proposal/Preliminary Assessment (for DOE sites)
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# FedConnect is one option being considered

<https://www.fedconnect.net/FedConnect/>

FedConnect



## *Gateway to Federal Opportunities*

FedConnect is an online marketplace where federal agencies post opportunities and make awards via the web. Any vendor can view public postings without registering. However, registered users have numerous added benefits including the ability to electronically submit responses to the government directly through this site.

### Register as a Vendor

Becoming a registered FedConnect vendor is fast, free and gives you the ability to review, respond and communicate electronically with federal agencies.

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If you still need help, either email [support@fedconnect.net](mailto:support@fedconnect.net) or call us at 1-800-899-6665.*

Sign In



# One option being considered is FedConnect

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## Advantages

- ☐ Well-established system
- ☐ Postings can include documents, drawings, etc.
- ☐ Built-in security
- ☐ Avoids reinventing the wheel
- ☐ Avoids problems associated with e-mail (vacations, personnel changes, etc.)

## Disadvantages

- ☐ Would require some training (both for DOE and ESCOs)
  - ☐ Not completely bug-free
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# Seeking Your Input

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- ☐ Do you agree/disagree with the proposed 18 month process model?
    - What would you suggest in terms of process improvement?
    - Are there any steps that could be eliminated?
      - ☐ Value add
      - ☐ Decision makers
    - Could things take place simultaneously, rather than linearly?
  - ☐ Could a process be developed for “standard” ECM’s?
  - ☐ Is FedConnect a suitable media for posting ESPC-related award information?
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# Thank You!

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## Comments, Questions?



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